

**Notice of Allowability**

Application No.

10/004,627

Applicant(s)

KINGSTON, HOWARD M.

Examiner

James P. Hughes

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2883

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE filed on 4-16-04.
2. ☒ The allowed claim(s) is/are 1-3, 6-20, 23-41.
3. ☒ The drawings filed on 7-24-03 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

**DETAILED ACTION*****Allowable Subject Matter***

1. Claims 1-3, 6-20, and 23-41 are allowed. The following is a statement of reasons for the indication of allowable subject matter. Claims 1, 24, 39 and 41 are allowed because the prior art of record fails to teach or fairly suggest a method of, or means for, in-process ratio mass spectrometry comprising providing a spike related to said sample, spiking the sample with the spike and permitting equilibrium to occur therebetween, subjecting said equilibrated spike and sample to atmospheric pressure ionization to create ions therefrom, introducing said ions into a mass spectrometer for ratio determination, in combination with the other recited limitations in the claim. Claims 2-3 and 6-23 are allowed by virtue of their dependence on claim 1. Claim 40 is allowed by virtue of its dependence on claim 39.

Claims 24 is allowed because the prior art of record fails to teach or fairly suggest a method of, or means for, in-process ratio mass spectrometry comprising providing a spike related to said sample, spiking the sample with the spike and permitting equilibrium to occur therebetween, subjecting said equilibrated spike and sample to atmospheric pressure ionization to create ions therefrom, introducing said ions into a mass spectrometer for ratio determination, in combination with the other recited limitations in the claim.

Claim 25 is allowed because the prior art of record fails to teach or fairly suggest an apparatus, or means for, in-process ratio mass spectrometry comprising a spike introduction apparatus for introducing at least one spike into said sample for permitting

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equilibration therebetween, an atmospheric pressure ionize for receiving said equilibrated sample and spike, and ionizing the same, a mass spectrometer for receiving and processing said ions by ratio determination, in combination with the other recited limitations in the claim. Claims 26-38 are allowed by virtue of their dependence on claim 25.

The examiner notes that the claims' recitations of "spike" and "ratio" are defined on page 15 of the specification and the recitation to "in-process" and "automated" are supported and understood as discussed throughout the specification (e.g., lines 1-5 of page 11). Additionally, the recitation of "in-process ratio" (independent claims 1, 23, 25, 39, and 41) and "automated isotope dilution" (independent claim 24) in the claims' preamble is necessary to give life, meaning and vitality to the respective claims, and therefore does limit the respective claims. (Pitney Bowes, 1 USPQ2d at 1165-66; Kropa v. Robi, 88 USPQ 478, 480-481 (CCPA 1951))

### *Conclusion*

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Anderson et al. (2003/0013199), which has a common inventor with the instant application, teaches a method and instrument for automated analysis fluids. (Abstract)

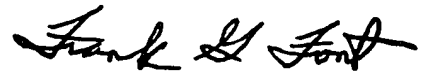
Any inquiry concerning this communication or earlier communications from the examiner should be directed to James P. Hughes whose telephone number is 571-272-2474. The examiner can normally be reached on Monday - Friday 9am - 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James Hughes  
Patent Examiner  
Art Unit 2883



Frank G. Font  
Supervisory Patent Examiner  
Technology Center 2800